

DAZ4 (J-23): sc-133498

BACKGROUND

Spermatogenesis is the process by which male spermatogonia develop into mature spermatozoa. DAZ (deleted in azoospermia) are RNA-binding proteins that play an essential role in spermatogenesis. DAZ proteins influence the first stages of spermatogenesis and the maintenance of germ cell populations. DAZ proteins (DAZ1, DAZ2, DAZ3, DAZ4 and DAZ5) are encoded by separate genes on chromosome Y, each of which contain an AZFc domain in their coding region. DAZ proteins localize to the nucleus of spermatogonia, but relocate to the cytoplasm during meiosis. DAZ proteins contain an RRM (RNA recognition motif) domain that may regulate mRNA translation by binding to the 3'UTR. Deletions in the genes encoding DAZ proteins may cause azoospermia or oligospermia which can lead to male infertility. DAZ4 (deleted in azoospermia 4), also known as pDP1680 or pDP1681, is a 579 amino acid testis specific protein that contains 9 DAZ-like domains and 2 RNA recognition motifs (RRM). DAZ4 exists as two alternatively spliced isoforms.

REFERENCES

1. Reijo, R., et al. 1995. Diverse spermatogenic defects in humans caused by Y chromosome deletions encompassing a novel RNA-binding protein gene. *Nat. Genet.* 10: 383-393.
2. Tsui, S., et al. 2000. Identification of two novel proteins that interact with germ-cell-specific RNA-binding proteins DAZ and DAZL1. *Genomics* 65: 266-273.
3. Saxena, R., et al. 2000. Four DAZ genes in two clusters found in the AZFc region of the human Y chromosome. *Genomics* 67: 256-267.
4. Ruggiu, M. and Cooke, H.J. 2000. *In vivo* and *in vitro* analysis of homodimerisation activity of the mouse Dazl1 protein. *Gene* 252: 119-126.
5. Moro, E., et al. 2000. Male infertility caused by a *de novo* partial deletion of the DAZ cluster on the Y chromosome. *J. Clin. Endocrinol. Metab.* 85: 4069-4073.
6. Foresta, C., et al. 2002. Inhibin B plasma concentrations in infertile patients with DAZ gene deletions treated with FSH. *Eur. J. Endocrinol.* 6: 801-806.
7. Skaletsky, H., et al. 2003. The male-specific region of the human Y chromosome is a mosaic of discrete sequence classes. *Nature* 423: 825-837.

CHROMOSOMAL LOCATION

Genetic locus: DAZ4 (human) mapping to Yq11.23.

SOURCE

DAZ4 (J-23) is an affinity purified rabbit polyclonal antibody raised against a synthetic DAZ4 peptide of human origin.

PRODUCT

Each vial contains 50 µg IgG in 0.5 ml of PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

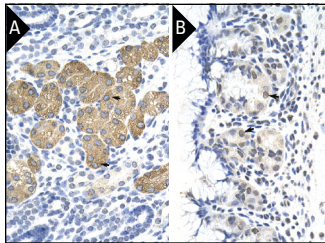
DAZ4 (J-23) is recommended for detection of DAZ4 of human and canine origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for DAZ4 siRNA (h): sc-106904, DAZ4 shRNA Plasmid (h): sc-106904-SH and DAZ4 shRNA (h) Lentiviral Particles: sc-106904-V.

Molecular Weight of DAZ4: 65 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227.

DATA



DAZ4 (J-23): sc-133498. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human kidney tissue showing cytoplasmic localization (A). Immunoperoxidase staining of formalin-fixed, paraffin-embedded human stomach tissue showing nuclear and cytoplasmic localization (B).

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.


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Try **DAZ (Z60): sc-100705**, our highly recommended monoclonal alternative to DAZ4 (J-23).